FIG. 1

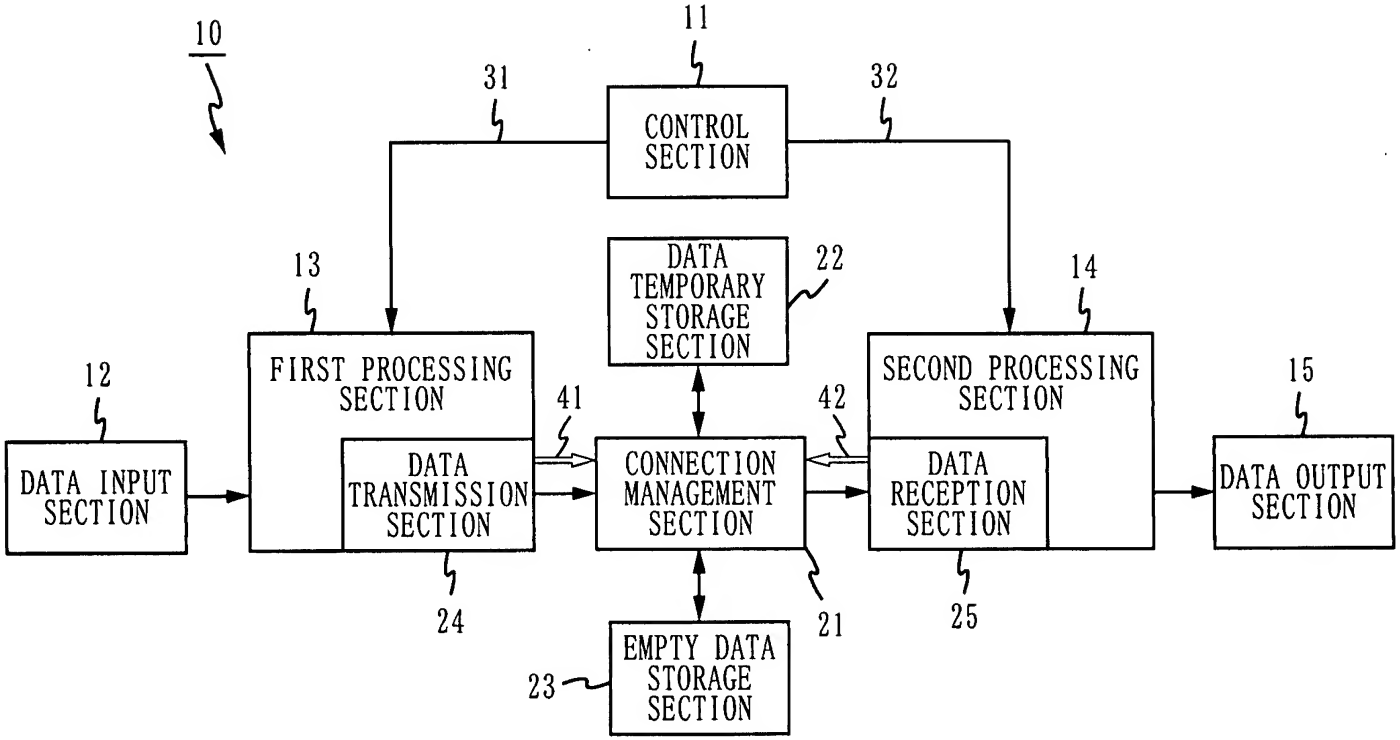

10
11
CONTROL SECTION
31
32
13
DATA TEMPORARY STORAGE SECTION
22
14
12
FIRST PROCESSING SECTION
41
42
SECOND PROCESSING SECTION
15
DATA INPUT SECTION
DATA TRANSMISSION SECTION
CONNECTION MANAGEMENT SECTION
DATA RECEPTION SECTION
DATA OUTPUT SECTION
24
21
25
23
EMPTY DATA STORAGE SECTION

FIG. 2

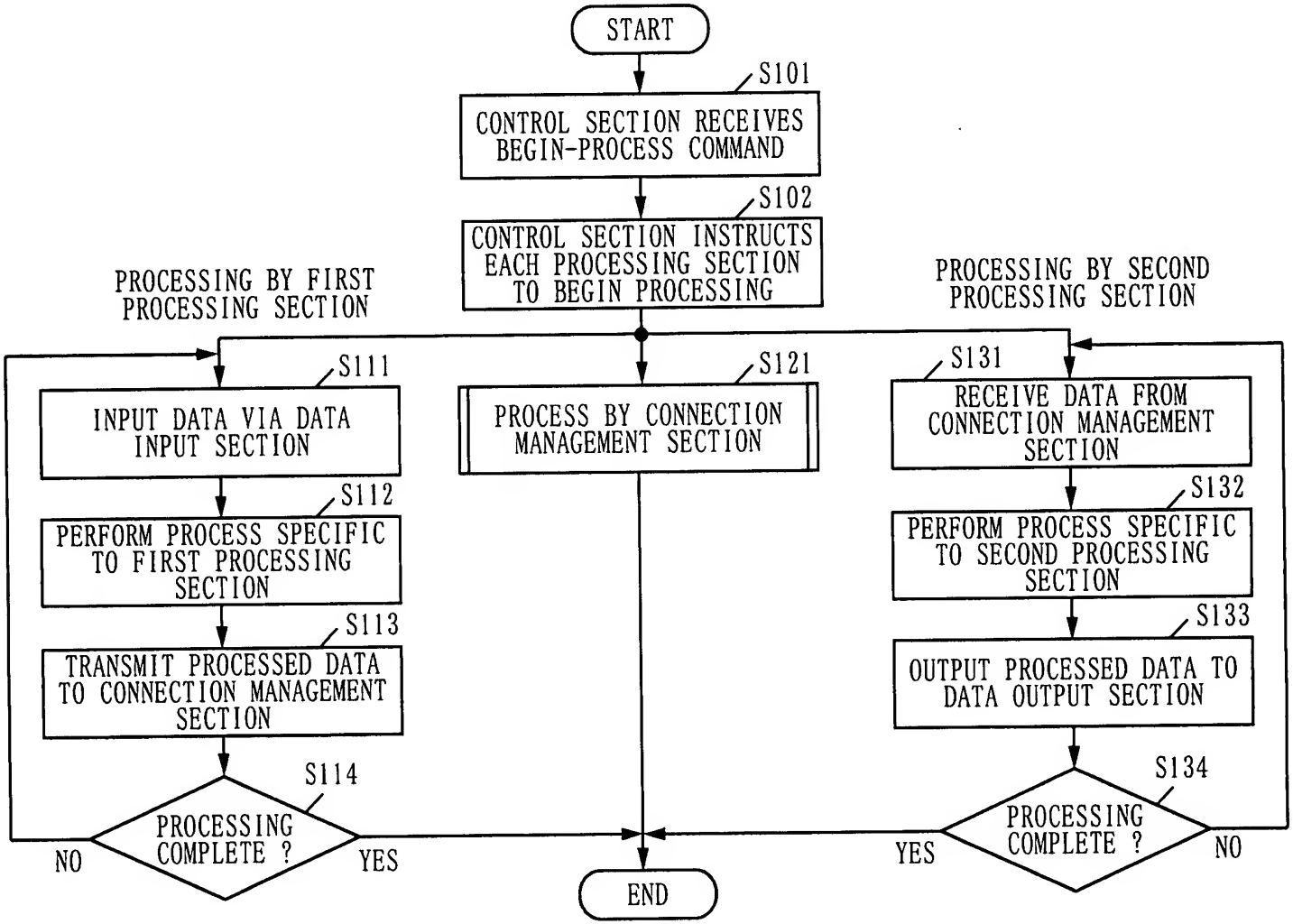

START
S101
CONTROL SECTION RECEIVES BEGIN-PROCESS COMMAND
S102
CONTROL SECTION INSTRUCTS EACH PROCESSING SECTION TO BEGIN PROCESSING
PROCESSING BY FIRST PROCESSING SECTION
PROCESSING BY SECOND PROCESSING SECTION
S111
INPUT DATA VIA DATA INPUT SECTION
S112
PERFORM PROCESS SPECIFIC TO FIRST PROCESSING SECTION
S113
TRANSMIT PROCESSED DATA TO CONNECTION MANAGEMENT SECTION
S114
PROCESSING COMPLETE ?
NO
YES
S121
PROCESS BY CONNECTION MANAGEMENT SECTION
S131
RECEIVE DATA FROM CONNECTION MANAGEMENT SECTION
S132
PERFORM PROCESS SPECIFIC TO SECOND PROCESSING SECTION
S133
OUTPUT PROCESSED DATA TO DATA OUTPUT SECTION
S134
PROCESSING COMPLETE ?
YES
NO
END

FIG. 3

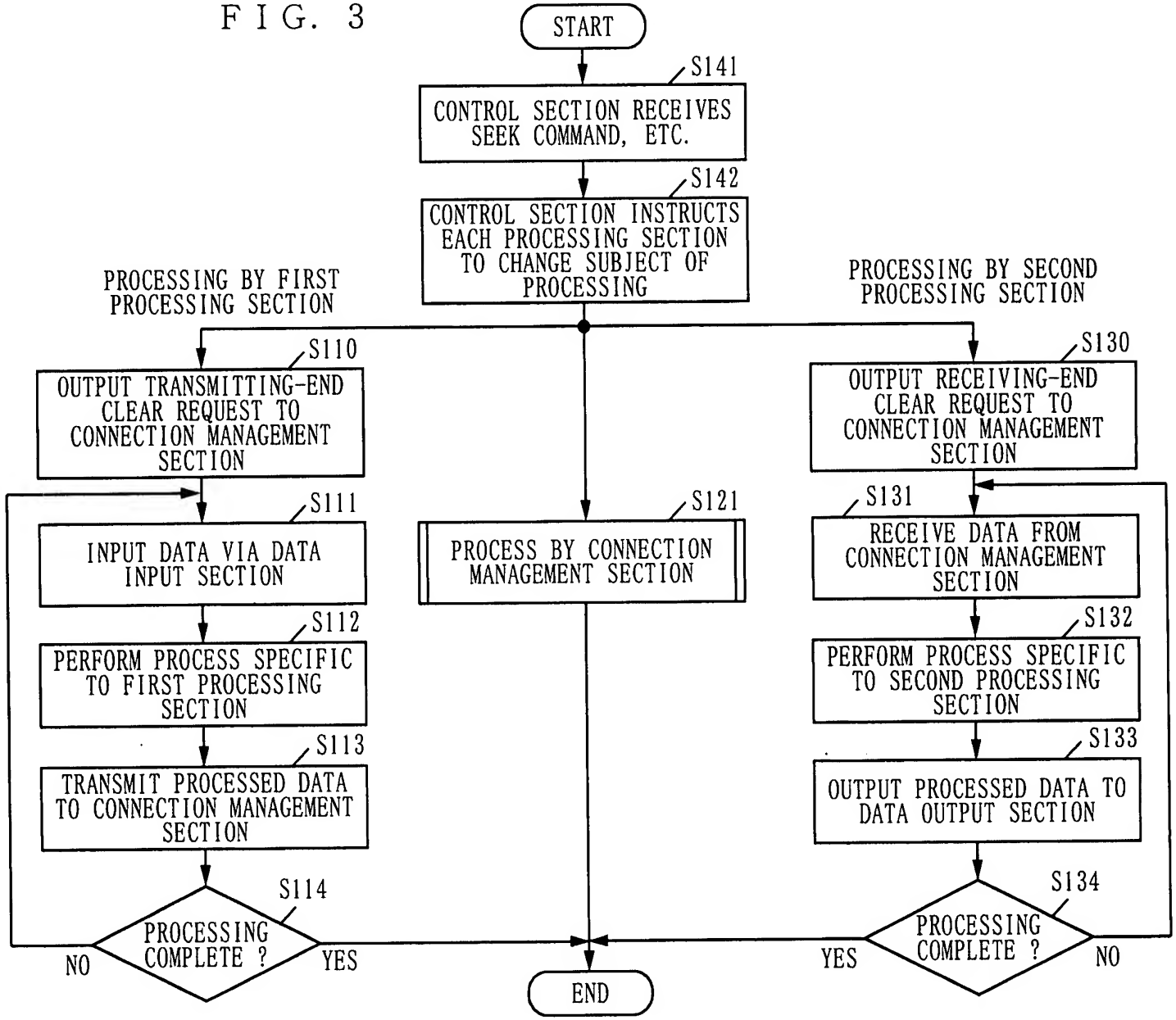

START
S141
CONTROL SECTION RECEIVES SEEK COMMAND, ETC.
S142
CONTROL SECTION INSTRUCTS EACH PROCESSING SECTION TO CHANGE SUBJECT OF PROCESSING
PROCESSING BY FIRST PROCESSING SECTION
PROCESSING BY SECOND PROCESSING SECTION
S110
OUTPUT TRANSMITTING-END CLEAR REQUEST TO CONNECTION MANAGEMENT SECTION
S111
INPUT DATA VIA DATA INPUT SECTION
S112
PERFORM PROCESS SPECIFIC TO FIRST PROCESSING SECTION
S113
TRANSMIT PROCESSED DATA TO CONNECTION MANAGEMENT SECTION
S114
PROCESSING COMPLETE ?
NO
YES
S121
PROCESS BY CONNECTION MANAGEMENT SECTION
S130
OUTPUT RECEIVING-END CLEAR REQUEST TO CONNECTION MANAGEMENT SECTION
S131
RECEIVE DATA FROM CONNECTION MANAGEMENT SECTION
S132
PERFORM PROCESS SPECIFIC TO SECOND PROCESSING SECTION
S133
OUTPUT PROCESSED DATA TO DATA OUTPUT SECTION
S134
PROCESSING COMPLETE ?
YES
NO
END

FIG. 4

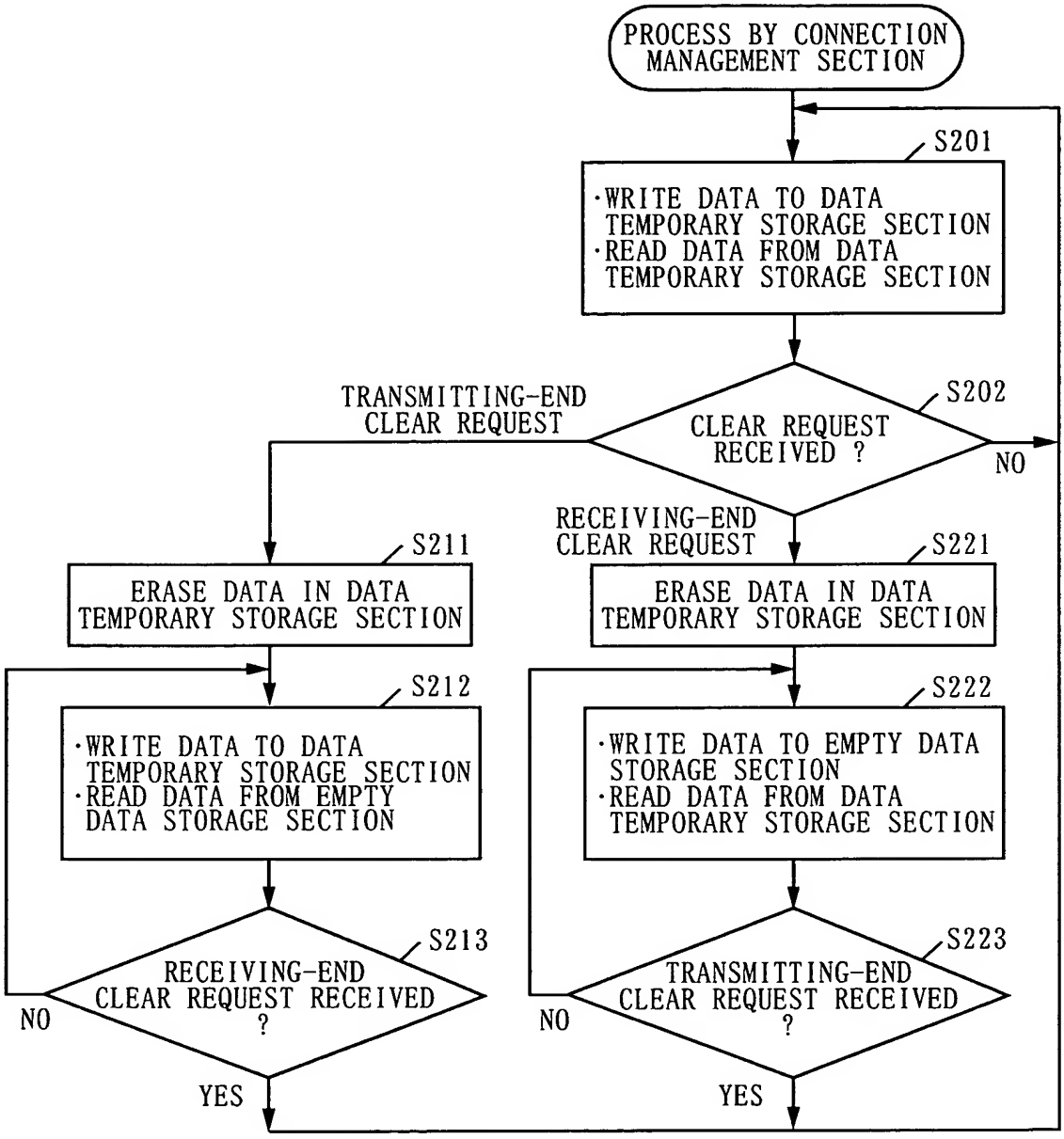

PROCESS BY CONNECTION MANAGEMENT SECTION
S201
·WRITE DATA TO DATA TEMPORARY STORAGE SECTION
·READ DATA FROM DATA TEMPORARY STORAGE SECTION
TRANSMITTING-END CLEAR REQUEST
S202
CLEAR REQUEST RECEIVED ?
NO
RECEIVING-END CLEAR REQUEST
S211
ERASE DATA IN DATA TEMPORARY STORAGE SECTION
S221
ERASE DATA IN DATA TEMPORARY STORAGE SECTION
S212
·WRITE DATA TO DATA TEMPORARY STORAGE SECTION
·READ DATA FROM EMPTY DATA STORAGE SECTION
S222
·WRITE DATA TO EMPTY DATA STORAGE SECTION
·READ DATA FROM DATA TEMPORARY STORAGE SECTION
S213
RECEIVING-END CLEAR REQUEST RECEIVED ?
NO
YES
S223
TRANSMITTING-END CLEAR REQUEST RECEIVED ?
NO
YES

FIG. 5

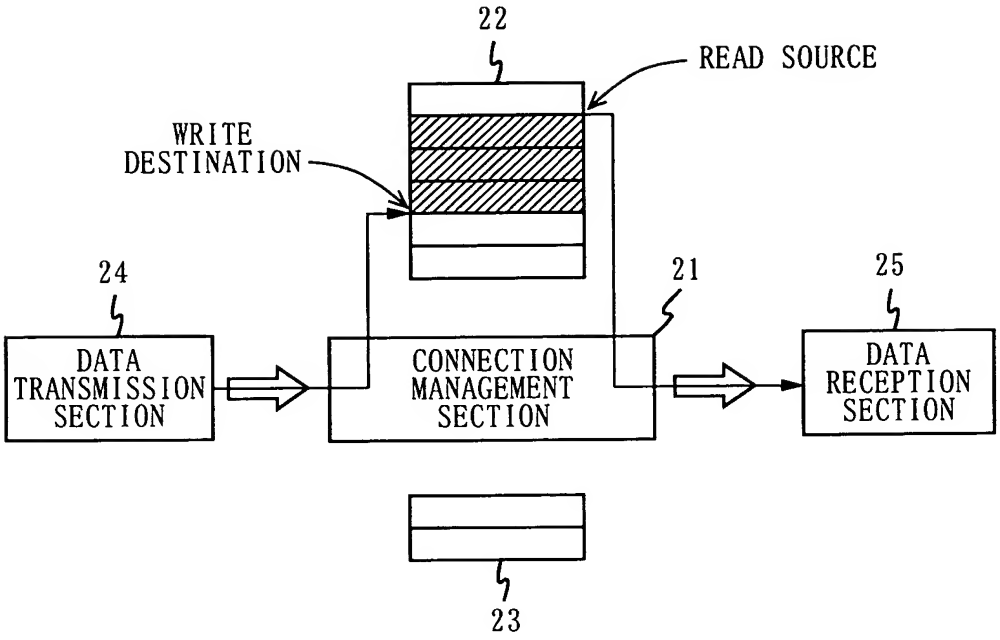

22
READ SOURCE
WRITE
DESTINATION
24
21
25
DATA
TRANSMISSION
SECTION
CONNECTION
MANAGEMENT
SECTION
DATA
RECEPTION
SECTION
23

FIG. 6

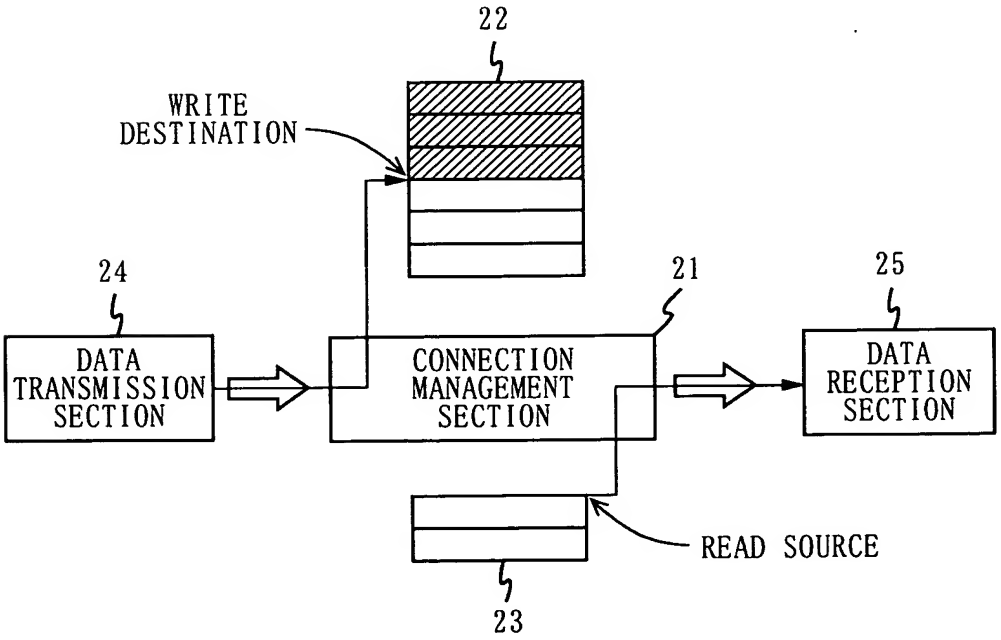

22
WRITE
DESTINATION
24
21
25
DATA
TRANSMISSION
SECTION
CONNECTION
MANAGEMENT
SECTION
DATA
RECEPTION
SECTION
READ SOURCE
23

FIG. 7

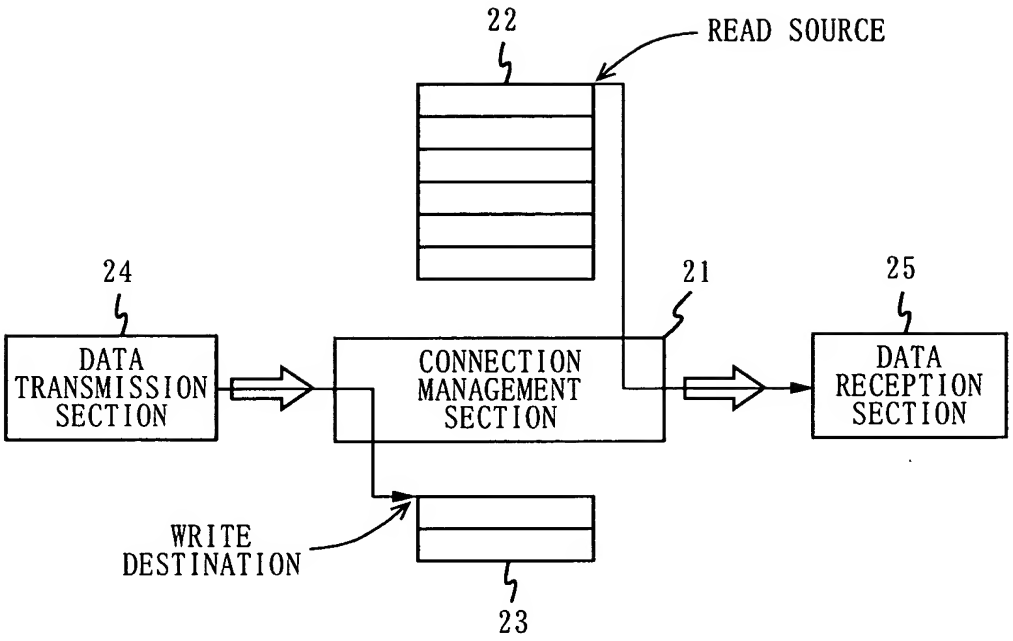


FIG. 8

FROM FIRST PROCESSING SECTION \ FROM SECOND PROCESSING SECTION	YET TO RECEIVE RECEIVING-END CLEAR REQUEST	ALREADY RECEIVED RECEIVING-END CLEAR REQUEST
YET TO RECEIVE TRANSMITTING-END CLEAR REQUEST	·WRITE DATA TO DATA TEMPORARY STORAGE SECTION ·READ DATA FROM DATA TEMPORARY STORAGE SECTION	·WRITE DATA TO EMPTY DATA STORAGE SECTION ·READ DATA FROM DATA TEMPORARY STORAGE SECTION
ALREADY RECEIVED TRANSMITTING-END CLEAR REQUEST	·WRITE DATA TO DATA TEMPORARY STORAGE SECTION ·READ DATA FROM EMPTY DATA STORAGE SECTION	·WRITE DATA TO DATA TEMPORARY STORAGE SECTION ·READ DATA FROM DATA TEMPORARY STORAGE SECTION

FIG. 9

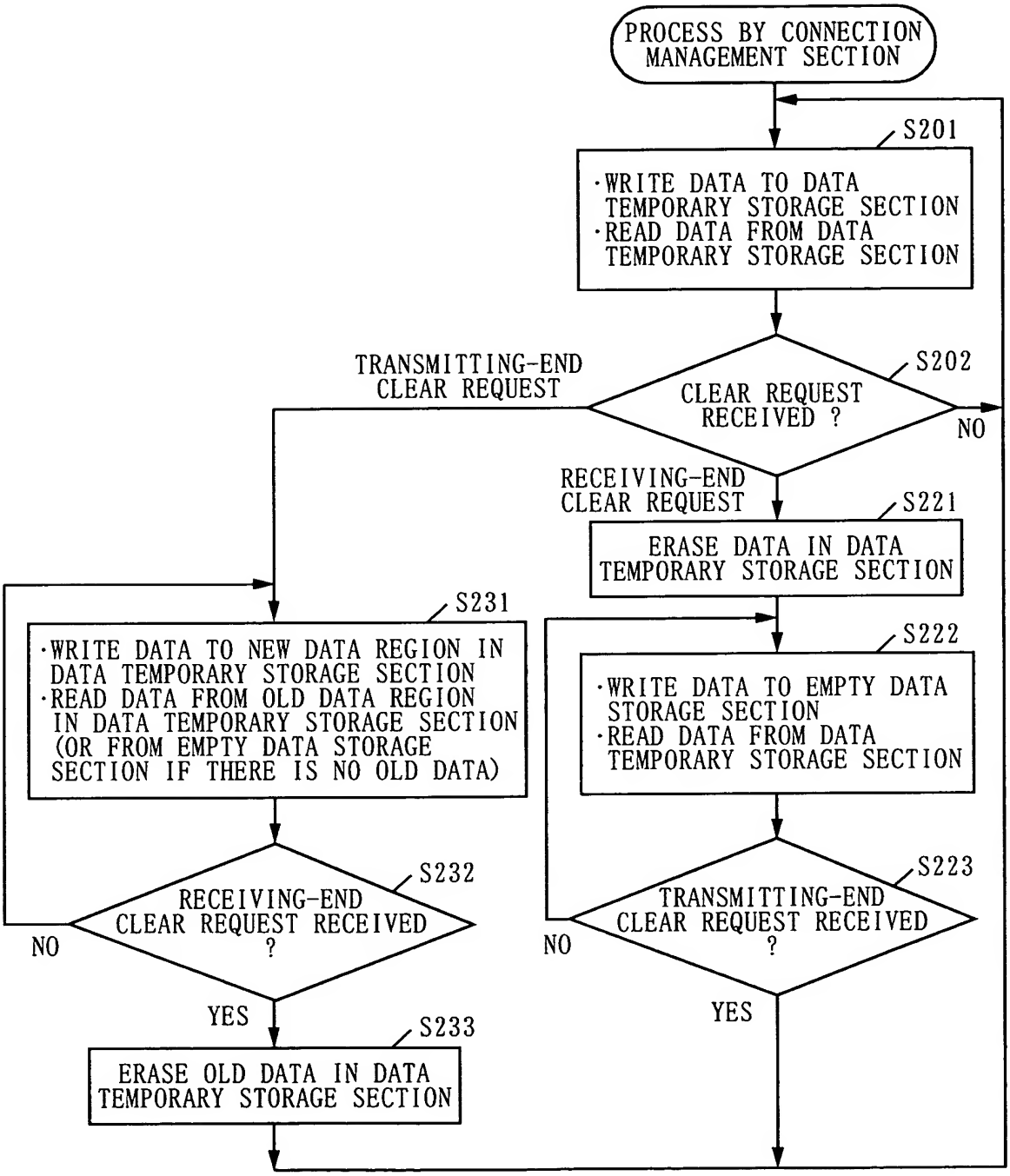

PROCESS BY CONNECTION MANAGEMENT SECTION
S201
·WRITE DATA TO DATA TEMPORARY STORAGE SECTION
·READ DATA FROM DATA TEMPORARY STORAGE SECTION
S202
CLEAR REQUEST RECEIVED ?
NO
TRANSMITTING-END CLEAR REQUEST
RECEIVING-END CLEAR REQUEST
S221
ERASE DATA IN DATA TEMPORARY STORAGE SECTION
S231
·WRITE DATA TO NEW DATA REGION IN DATA TEMPORARY STORAGE SECTION
·READ DATA FROM OLD DATA REGION IN DATA TEMPORARY STORAGE SECTION (OR FROM EMPTY DATA STORAGE SECTION IF THERE IS NO OLD DATA)
S222
·WRITE DATA TO EMPTY DATA STORAGE SECTION
·READ DATA FROM DATA TEMPORARY STORAGE SECTION
S232
RECEIVING-END CLEAR REQUEST RECEIVED ?
NO
YES
S223
TRANSMITTING-END CLEAR REQUEST RECEIVED ?
NO
YES
S233
ERASE OLD DATA IN DATA TEMPORARY STORAGE SECTION

FIG. 10

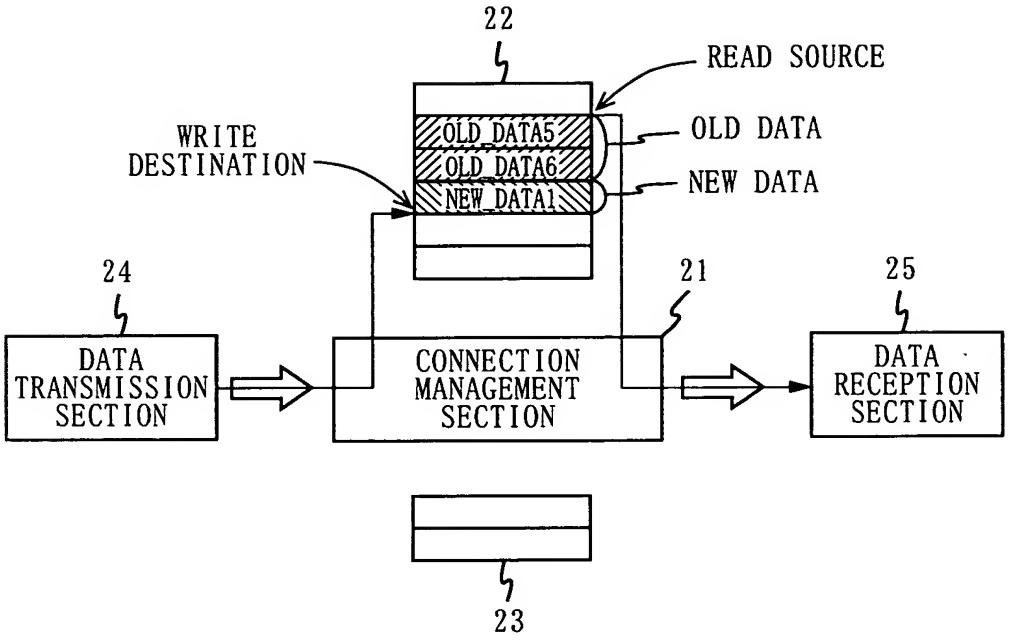

22
READ SOURCE
WRITE DESTINATION
OLD_DATA5
OLD_DATA6
NEW_DATA1
OLD DATA
NEW DATA
24
21
25
DATA TRANSMISSION SECTION
CONNECTION MANAGEMENT SECTION
DATA RECEPTION SECTION
23

FIG. 11

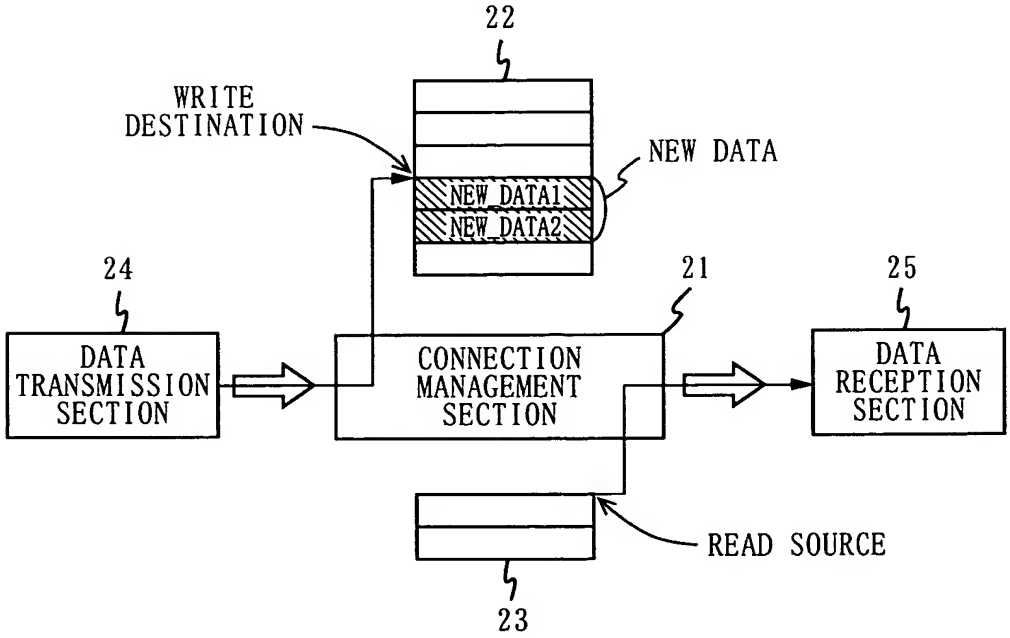
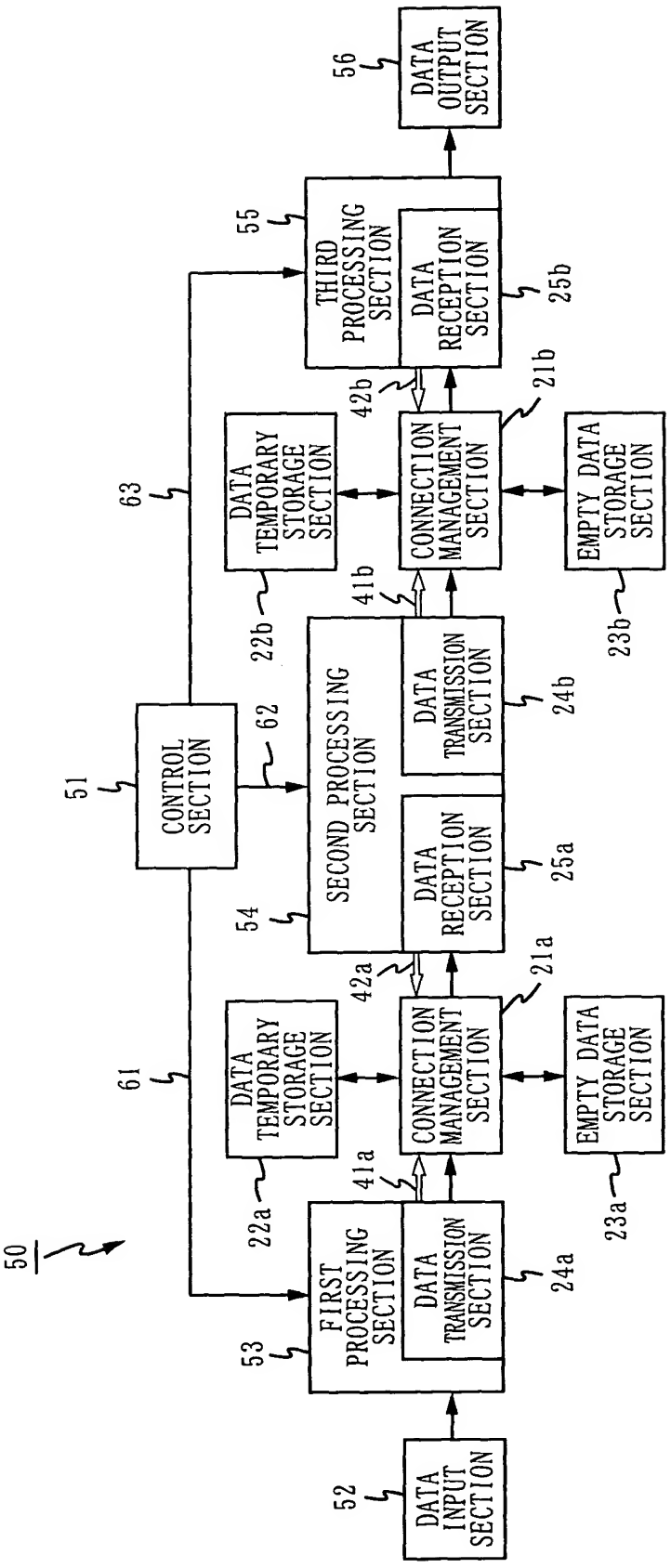

22
WRITE DESTINATION
NEW DATA
NEW_DATA1
NEW_DATA2
24
21
25
DATA TRANSMISSION SECTION
CONNECTION MANAGEMENT SECTION
DATA RECEPTION SECTION
READ SOURCE
23

FIG. 12

FROM FIRST PROCESSING SECTION \ FROM SECOND PROCESSING SECTION	YET TO RECEIVE RECEIVING-END CLEAR REQUEST	ALREADY RECEIVED RECEIVING-END CLEAR REQUEST
YET TO RECEIVE TRANSMITTING-END CLEAR REQUEST	·WRITE DATA TO DATA TEMPORARY STORAGE SECTION ·READ DATA FROM DATA TEMPORARY STORAGE SECTION	·WRITE DATA TO EMPTY DATA STORAGE SECTION ·READ DATA FROM DATA TEMPORARY STORAGE SECTION
ALREADY RECEIVED TRANSMITTING-END CLEAR REQUEST	·WRITE DATA TO NEW DATA REGION IN DATA TEMPORARY STORAGE SECTION ·READ DATA FROM OLD DATA REGION IN DATA TEMPORARY STORAGE SECTION (OR FROM EMPTY DATA STORAGE SECTION IF THERE IS NO OLD DATA)	·WRITE DATA TO DATA TEMPORARY STORAGE SECTION ·READ DATA FROM DATA TEMPORARY STORAGE SECTION

FIG. 13


50
DATA INPUT SECTION
52
FIRST PROCESSING SECTION
53
DATA TRANSMISSION SECTION
24a
DATA TEMPORARY STORAGE SECTION
22a
CONNECTION MANAGEMENT SECTION
21a
EMPTY DATA STORAGE SECTION
23a
41a
42a
61
CONTROL SECTION
51
SECOND PROCESSING SECTION
54
DATA RECEPTION SECTION
25a
DATA TRANSMISSION SECTION
24b
62
63
DATA TEMPORARY STORAGE SECTION
22b
CONNECTION MANAGEMENT SECTION
21b
EMPTY DATA STORAGE SECTION
23b
41b
42b
THIRD PROCESSING SECTION
55
DATA RECEPTION SECTION
25b
DATA OUTPUT SECTION
56